

STRONG
FITNESS MAGAZINE

TRAINING GUIDE

**SKIP
YOUR
WAY FIT**
WITH OUR
KILLER
JUMP ROPE
ROUTINE

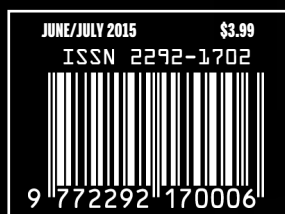
FINE-TUNE YOUR BODY

*Workouts to get
more fit, flexible
and functional*

CREATINE 101
EVERYTHING YOU NEED TO KNOW

Get Epic Strength

**+
CROSSFIT
SAFETY
TIPS**



**UPPER
BODY
TRAINING
FOR FAST
RESULTS**



BCAAs – BACKED BY SCIENCE, & HIGHLY EFFECTIVE & DELICIOUS!

“Are BCAAs the Best Supplement you can take?”

INTELLIGENT DIETING SUPPORT

Caloric restriction, limiting carbs, increased cardio intensity; all essential for effective dieting, and all rapid ways to breakdown and flush away muscle. The muscle tissue breakdown that takes place when you're dieting reduces your metabolism and your ability to burn calories. Taking AMINOCORE feeds your muscles directly even while dieting and dramatically limits muscle deterioration. The net effect; you retain muscle, melt fat and maintain a higher metabolism. AMINOCORE the dieting secret you've been looking for.

THE BEST MIXABILITY, DELIVERY & ABSORPTION

AMINOCORE has Myotrisol™; a cutting-edge solubility technology to BCAA dosage administration. Until now, delivery of a 100% pure 45:30:25 ratio BCAA powder in a potent research directed level (8,180 mg), ideal for ANABOLIC activity, was next to impossible. Aside from being the purest Pharmaceutical-Grade BCAAs, our Myotrisol™ process FLASH-FREEZE-DRIES our 45:30:25 BCAA powder to create a truly soluble and easily-mixed BCAA drink that absorbs in a truly liquid form.

IS ORAL SUPPLEMENTATION EFFECTIVE?

The first question any skeptical supplement buyer should always ask is, “That’s great in a lab, but if I take it, will it work?” The answer is definitively, yes! Oral liquid supplementation of 8.18 g of 45:30:25 ratio BCAAs boosted BCAA concentration in the blood and in muscle cells and activated the mTor-p70^{S6k} classic anabolic signal. This confirms that drinking your BCAAs (as in AMINOCORE) in a soluble liquid form replicates the research! You can literally implement this groundbreaking technology TODAY!

ALL BCAAs ARE NOT CREATED EQUAL!

When you're comparing one BCAA to the other, look closely at the formula – does it include glutamine passed off as real BCAAs? In contrast, the AMINOCORE label shows you precise BCAA amounts. Glutamine has its place, but it is not a Branched Chain Amino Acid (BCAA). AMINOCORE includes 8,180 mg of real BCAAs not glutamine. AMINOCORE is 100% PURE, FERMENTATION-DERIVED, PHARMACEUTICAL-GRADE, 45:30:25 ratio BCAAs. With added Ketoisocaproic

acid (KIC) to further enhance the buffering of lactic acid (muscle toxin) and increase the levels of L-Leucine at the site of muscle. AMINOCORE contains additional highly bioavailable B-Vitamins not only enhance the anabolic environment, they help to release additional metabolic energy.

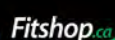
THE BOTTOM LINE!

BCAAs (Branched Chain Amino Acids - Leucine, Valine and Isoleucine) are one of the most effective supplements you can buy. BCAAs improve and maintain your muscle tone like nothing else. Having more muscle than fat creates the most ideal physical shape. A greater degree of Lean Body Mass (LBM) elevates your metabolism and in doing so can increase the rate at which you burn through calories. Finally, a truly effective BCAA supplement that mixes perfectly and tastes exceptionally good.

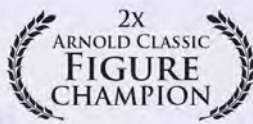


AMINOCORE comes in 4 Flavors & Unflavored!

Available in two sizes:
44 servings and 111 servings.
Take 1 scoop with cold water
every workout.



*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



CHOICE OF CHAMPIONS

TEAM ALLMAX
ANDICE KEENE
10X IFBB CHAMPION

- 8,180 mg of 45:30:25 PURE INSTANT BCAAs
- FORTIFIED WITH FATIGUE-FIGHTING Alpha K.I.C.
- LOADED WITH 7 FORMS OF VITAMINS B3, B6, B9 & B12!

0g
Sugar

8g
BCAAs

0g
Carbs





TRAINING

STRENGTH & BALANCE | 18

Don't let gravity get you down. This killer push-pull workout for your upper body will help you get stronger and stand taller.

SKIP THE EXCUSES | 16

Whoever claimed they didn't have time to exercise didn't own a jump rope. Rock this cardio meets strength routine the next time you're in a rush.

SINGLED OUT | 10

Take a break from heavy squats and try this humbling unilateral leg workout. Your muscles won't know what hit 'em.

IT'S ALL IN THE HIPS | 26

Are tight hip flexors limiting your squat? These yoga poses and stretches will get you limbered up and dropping it low in no time.

NUTRITION

CREATINE 101 | 24

Get a crash course in bodybuilding's favorite pump-enhancing supplement.

in every issue

CONTRIBUTORS | 3

Meet the masterminds behind each word and workout.

PURE ADRENALINE | 6

Moments of strength to get you all fired up.

TRAINER TALK | 8

Unilateral training might be the most important

technique you're not doing. Our expert columnist explains why.

INJURY REPORT | 28

The doctor is in. Sports Chiropractor James Ho gives his expert advice for staying safe in CrossFit.

ON THE COVER

COVER MODEL
ANYA ELLS

PHOTOGRAPHY
PAUL BUCETA

SHOT IN
OLYMPIA MUSCLE
& FITNESS
IN MISSISSAUGA, ON



KELLY TURNER PHOTO: MITCH OLSEN DR. HO PHOTO: ANDREW BADDIER
LINDSAY PHOTO: R.G. PHOTOGRAPHY NICHELLE LAUS PHOTO: DAVE LAUS

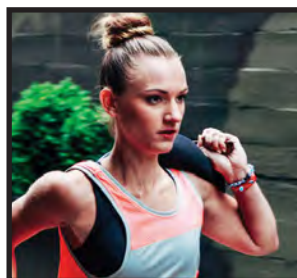


NICHELLE LAUS, FITNESS EXPERT & COACH

“Skip the Excuses,” pg 16

It’s safe to say that Nichelle Laus may not be where she is today without a skipping rope. The former amateur competitive kickboxer has been training in the discipline for almost 20 years, and skipping has been an integral part of her conditioning. **“Skipping helps my overall athletic performance,”** she says. “Not only does it help with my cardio, it also improves my coordination, agility, and explosive power.”

When it comes to the world of fitness, Nichelle has left no stone unturned. From gracing the covers of magazines to competing on stage in both Bikini and Figure categories, she’s done it all. She’s also a personal trainer and competition coach, using her personal experience and success in the industry to help others achieve their goals.



KELLY TURNER,
HEALTH & FITNESS WRITER

“Strength & Balance,” pg 18

Ten years ago, Kelly got into the fitness industry as a personal trainer because she wanted to help people transform their bodies and their lives. Today she’s a successful trainer in Seattle, WA, with her work appearing online and in publications across the country.



DR. JAMES HO, DC, BHSC

Injury Report, pg 28

A member of STRONG Fitness Magazine’s Advisory Board, James is our go-to expert when it comes to sports medicine and chiropractic concerns. He’s a chiropractor at the Athlete’s Care Sports Medicine Centres in Toronto and has consulted athletes at the pro level from the NHL to UFC, as well as recreational athletes and Olympians.



ASHLEIGH GASS, CCM, CNS

“Creatine Crash Course,” pg 24

With decades of experience in athletics and training and a Master’s degree in Human/Clinical Nutrition, Ashleigh brings hard facts to the table when discussing how to fuel for optimal performance. She’s also a graduate of the National Coaching Institute, specializing in coaching athletes of all levels.



DAVE LAUS, PHOTOGRAPHER

“Strength & Balance,” pg 18

Photographer Dave Laus burst onto the fitness scene just a couple of years ago, but he’s already making waves. His work has appeared on a number of fitness magazine covers and training articles, proving he’s carving a path to becoming a highly sought-after industry professional.



LINDSAY KENT, COLUMNIST AND
FOUNDER OF EQUILIBRIUM BODYLAB

“Singled Out,” pg 10

Owner of Equilibrium Bodylab in Georgia, Lindsay’s breadth of knowledge and experience in fitness cuts through the fluff and gets right to the heart of her clients’ goals, whether that means building more muscle, increasing strength, or busting through a plateau.

#mystrong MOMENT

Posts We Love!



NICE TANK!
Véronique
representing in
her STRONG tank
top at MudHero
Ottawa.



STRONG

FITNESS MAGAZINE

PRESIDENT

Kim Gunther

EDITOR-IN-CHIEF

Kirstyn Brown

PUBLISHER

Kevin Detto

CREATIVE DIRECTOR

Erin Lutz

CHIEF PHOTOGRAPHER

Paul Buceta

SENIOR DESIGNER

Jacqueline Hornyak

DESIGNER

Andreia Pereira

COPY EDITOR

Chelsea Clarke

PHOTOGRAPHY COORDINATOR

Annette Milbers

ADVERTISING SALES

Kevin Detto

kdetto@strongfitnessmag.com

416-804-3616

DIRECTOR OF SPECIAL EVENTS

Tina Tyler

ttyler@strongfitnessmag.com

LEGAL COUNSEL

Scot Patriquin

Brauti Thorning Zibarras LLP

CONTRIBUTORS

Ashleigh Gass, James Ho, Lindsey Kent,
Dave Laus, Nichelle Laus, Kelly Turner,
Brett Seeley.

SPECIAL THANKS

Ignite Fitness in Columbus, OH, Olympia
Muscle & Fitness in Mississauga, ON.

DISTRIBUTION

Disticor Magazine Distribution Services

Office 905-619-6565

PRINTING

RR Donnelley • Mark de Groot

Office 905-362-3245

Always consult your physician before beginning any exercise program. This general information is not intended to diagnose any medical condition or to replace your healthcare professional. Consult with your healthcare professional to design an appropriate exercise prescription. If you experience any pain or difficulty with these exercises, stop and consult your healthcare provider. If you experience any symptoms of weakness, unsteadiness, light-headedness or dizziness, chest pain or pressure, nausea, or shortness of breath. Mild soreness after exercise may be experienced after beginning a new exercise. Contact your physician if the soreness does not improve after 2-3 days.

Create Radical Transformation & Fall Madly in Love with Your Life

Visit Loriharder.com to find out which program is right for you!

.....

Find Your Tribe

Killer Workouts

Busygirl Cookbook for Your Ultimate Body

Retreats

Life Coaching

LORI HARDER

reconnecting you to your mind, body & soul





pure **ADRENALINE**

PHOTOGRAPHY BY BRETT SEELEY



**“IT’S NOT
ABOUT PERFECT,
IT’S ABOUT
EFFORT.”**

-JILLIAN MICHAELS

COACH LINDSAY

WRITTEN BY LINDSAY KENT, ISSA PROFESSOR,
MASTER TRAINER AND OWNER OF EQUILIBRIUM BODYLAB



The Importance of Unilateral Training

Why single-limb exercises shouldn't be ignored.

THERE ARE A LOT OF effective techniques to incorporate into your training program, but I'm always surprised by how little attention is given to one very important concept: Unilateral training. This technique, where you train one limb or side of the body at a time, is essential to ensuring you continue progressing your strength and muscle gains. Here's why:

**FLIP TO PAGE 10
FOR A UNILATERAL
WORKOUT FOR YOUR
LOWER BODY!**

MUSCLE RECRUITMENT

One of the key benefits of unilateral training is the ability to recruit more muscles at one time, which means not only burning more calories, but also engaging important stabilization muscles that often get left out during bilateral training. For example, when performing unilateral leg exercises, such as those in the workout on page 10, the abductors and adductors are activated to keep you balanced, along with stabilizer muscles of the hips and pelvis.

This total activation of muscle groups builds a solid foundation of support, which allows for smoother, more

seamless movements and coordination patterns during weight lifting and athletic performance.

BILATERAL DEFICIT

Unilateral training is an exceptional tactic for increasing strength thanks to the phenomenon known as the bilateral deficit. When performing unilateral movements, the sum of the individual efforts of a single limb will end up being greater than the total force production of the lift. Basically, you will build more individual strength on each side or limb, versus if you were to do the move bilaterally.

This could mean increasing your overall force output exponentially with less weight, rather than having to put dangerously heavy loads on your body's joints. You then begin to create a greater power output in a balanced and controlled fashion, but in an unbalanced environment.

SPINE PROTECTION

Unilateral lifting will also help to prevent spine injuries, and allow those who have experienced back injuries to continue lifting and building strength, with potentially less risk.

Heavier lifts, such as deadlifts, put a tremendous amount of force and compression on the spinal column, creating wear and tear over time. But a unilateral deadlift (or squat, or leg press) puts literally half the load on your spinal column at one time.

Also, previous injuries will often result in weaknesses in that area of the body, causing the stronger side to over-compensate during bilateral exercises. Unilateral training will eliminate this problem, helping to rebuild the injured area and even out strength imbalances throughout the body, which will help to reduce the risk of injury in the future.

ADL

Training for your activities of daily living (ADL), is also an important component of functional strength, greatly enhanced with unilateral movements. Most tasks that we complete throughout the day require the balance and strength of one limb or one side of the body, and this functional component transfers over into sports and weight room performance as well.

Yours in Fitness,

Lindsay



SUBSCRIBE & STAY STRONG



Visit strongfitnessmag.com/subscription to subscribe and receive 6 issues of **STRONG Fitness Magazine** delivered to your door.

PLUS:
Receive 6 issues
of the Digital
Training Guide **FREE!**



When it comes to leg day, two isn't always better than one.

Singled Out

WRITTEN BY KIRSTYN BROWN, EDITOR-IN-CHIEF | ROUTINE BY LINDSAY KENT, ISSA PROFESSOR, MASTER TRAINER AND OWNER OF EQUILIBRIUM BODYLAB | PHOTOGRAPHY BY PAUL BUCETA

You may be reluctant to believe it, but being single definitely has its benefits.

Of course, we're talking about unilateral training, not how you spend your Saturday nights.

Joking aside, if you're serious about your training and want to continue making progress in your strength and muscle gains, unilateral training is non-negotiable. Our fitness expert Lindsay Kent already outlined the importance of one-sided exercises in her column on page 8, but the cliffnotes version includes a higher calorie burn, increased strength and improved balance compared to bilateral movements, plus the added bonus of spine protection and injury prevention. Not a bad deal.

Now that you're sold on the concept of going single in the gym, try this unilateral workout on your next leg day. If your body is accustomed to being fully supported during squats and deadlifts, you might want to start with fewer sets and lighter weight. If you're a veteran of one-sided workouts, challenge yourself and shoot to complete all sets. Either way, you'll feel that next-day soreness in places you didn't know you had. Welcome to singlehood.

The Workout

HOW TO: Perform the following unilateral supersets by completing all the prescribed reps of the first exercise on one leg, then repeat on the other side, then move to the next exercise in the superset. Rest 45-60 seconds between supersets.

SUPERSET	SETS	REPS
1a. Single-Leg Deadlift	5	15
1b. Standing Cable Hamstring Curl		15
2a. Unilateral Leg Press	5	20
2b. Reverse Lunge with Kick		20
3a. Assisted Pistol Squat	4	12
3b. Bulgarian Split Squat		12
STRAIGHT SET		
Weighted Donkey Kick	2	12



MODEL ANYA ELLIS HAIR & MAKEUP LORI FABRIZIO OF TWO CHICKS & SOME LIPSTICK
SHOT ON LOCATION AT OLYMPIA MUSCLE & FITNESS



1a.

Single-Leg Deadlift

SET UP: Stand tall holding a dumbbell in each hand in front of your thighs, palms facing you. Shift your weight into one leg and slightly lift the other foot off the floor.

ACTION: Hinge forward from the hips to lower the weights while raising your free leg straight up behind you until it is parallel to the floor and you feel a stretch in your supporting leg. Raise back up to return to the starting position and repeat.



1b.

Standing Cable Hamstring Curl

SET UP: Stand facing the weight stack in a cable apparatus with one foot secured in an ankle strap on a low pulley. Shift your weight into the opposite leg and hold the apparatus for support.

ACTION: Bend your knee, raising your foot as high as you can towards your glutes. Hold for a moment, then slowly lower back down with control. Repeat.

2a.

Unilateral Leg Press

SET UP: Place both feet hip-width apart on the platform. Extend your legs to press the platform up to the top position, unlock the safety, then place one foot on the floor in front of you (A).

ACTION: Bend your weight-bearing leg to lower the plate towards you with control. Lower until your knee is bent 90 degrees (B), then drive through your heel to press the weight back up. Repeat.

WITH THE UNILATERAL LEG PRESS, BEGIN WITH NO WEIGHT, THEN ADD 10 LBS PER SIDE IF NEEDED.

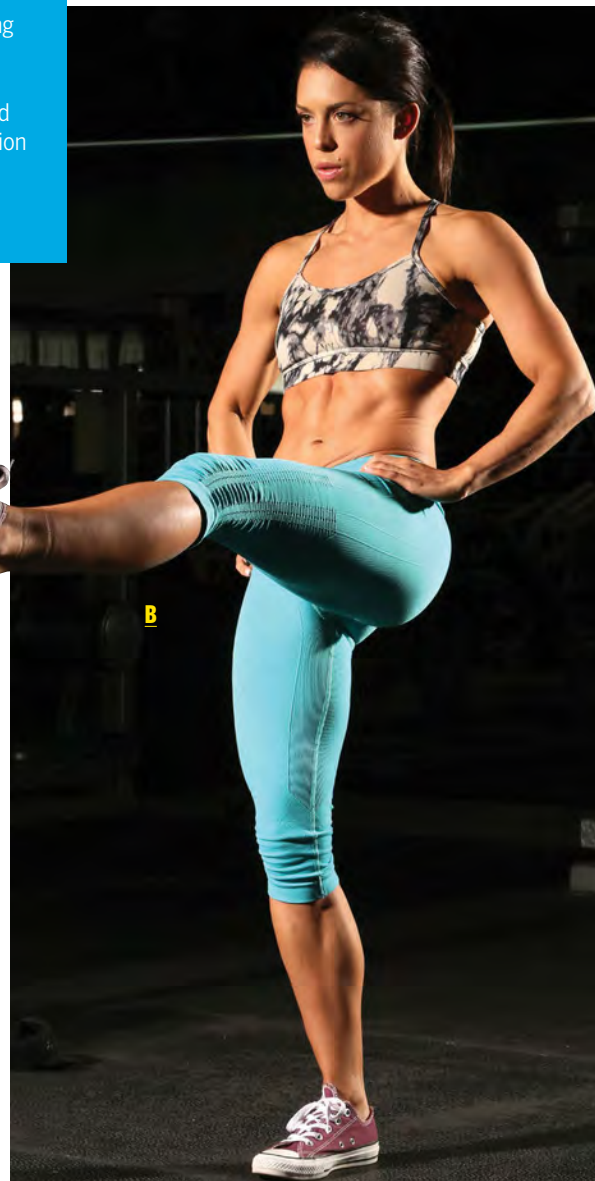


2b.

Reverse Lunge with Kick

SET UP: Stand with your hands on your hips or clasped in front of you. Take a large step behind you and lower until your back knee is almost touching the floor and your front quad is parallel to the floor (A).

ACTION: Press through your front heel and extend your front leg to come up to standing while bringing your back leg straight up and kicking it out in front of you (B). Immediately lower your leg behind you to return to the starting position and repeat. ▶



3a.

Assisted Deep Pistol Squats

SET UP: Adjust a bar in a squat rack or Smith Machine to chest level and stand facing it with both hands lightly grasping the bar. Shift your weight to one leg and slightly raise your other foot off the ground.

ACTION: Keeping your free leg straight in front of you, bend your supporting leg and squat down as deeply as you can, while holding the bar for support. Drive through your heel and extend your leg to come up to standing and repeat.

USE YOUR GLUTES AND
HAMSTRINGS TO PRESS
BACK UP TO STANDING;
DON'T PULL ON THE BAR.





3b.

Bulgarian Split Squat

SET UP: Stand facing away from a flat bench with a weighted barbell across your upper back. Extend one leg backward and place your foot on the bench behind you, laces down if possible.

ACTION: Bend your front knee and squat down until your front thigh is parallel to the floor, knee over your toes, and your back knee is a few inches from the floor. Extend your front leg and press up to the starting position. Repeat.



STRAIGHT SET



Weighted Donkey Kick

SET UP: Get on your hands and knees on the floor and place a light-moderate dumbbell behind your knee. Raise that knee off the ground slightly while keeping your hips square to the ground.

ACTION: Flex your foot and raise your heel toward the ceiling as high as you can without hyperextending your low back. Hold for a moment at the top, then slowly lower back down without touching the floor. Repeat. **8**

SKIP *the Excuses*

No time to work out? Think again. This full-body routine gets you cardio-plus-conditioning in 20 minutes flat.

ROUTINE BY NICHELLE LAUS, CERTIFIED PERSONAL TRAINER & COACH
PHOTOGRAPHY BY PAUL BUCETA

Pop quiz, Hotshot: You only have 30 minutes to get in a good workout.

Do you a) Pound the treadmill, b) Do a few bodyweight exercises, or c) Forget the whole thing and grab a latte instead.

It's a trick question. The answer is d) Bang out this 20-minute HIIT routine that combines the calorie-killing power of jump rope, plyometrics, and resistance exercises. You'll get your cardio and strength training done in one shot, with enough time left over to reward yourself with that latte.



EQUIPMENT NEEDED:

- Jump rope
- Flat bench or step
- Stopwatch
- Yoga mat

MODEL ASHLEY PATCH HAIR & MAKEUP LORI FABRIZIO OF TWO CHICKS & SOME LIPSTICK



Perform the following circuit twice. You can change up the skipping style to suit your skill level by including: alternating feet, high knees, side-to-side and double-unders.

EXERCISE	WORK TIME	REST TIME
JUMP ROPE	45 SEC	15 SEC
MOUNTAIN CLIMBER	45 SEC	15 SEC
JUMP ROPE	45 SEC	15 SEC
BENCH HOP OVER	45 SEC	15 SEC
BURPEE	45 SEC	15 SEC
JUMP ROPE	45 SEC	15 SEC
*JACKKNIFE SIT-UP	45 SEC	15 SEC
JUMP ROPE	45 SEC	15 SEC
*BENCH/STEP STRADDLE SQUAT	45 SEC	15 SEC
*DIVE-BOMBER PUSH-UPS	45 SEC	15 SEC

NEVER DONE A DIVE- BOMBER?

Begin in a Downward Dog position with feet wider than shoulder-width apart and hips raised toward the ceiling. In a fluid motion, bend your arms and slowly drop your body towards the ground leading with your chest, then torso, then hips. Reverse the motion and repeat.

Not familiar with a Jackknife?

Lie back with your legs straight and arms extended overhead. Keep them both straight. Sit up, raising your legs to a 45-degree angle and reaching your hands to your shins or ankles. Lower back down and repeat.

What's a Straddle Squat?

Stand with either foot on either side of a bench or step. Squat down, then explode upward bringing your feet together and landing flat on the surface. Jump down and repeat.



Want to even out muscle imbalances and become a better athlete? You'll have to pull out all the stops.



STRENGTH & Balance

WRITTEN BY KELLY TURNER, FITNESS EXPERT
AND FOUNDER OF SWEATYTHINGS.NET
PHOTOGRAPHY BY DAVE LAUS

BY NOW IT'S NO SECRET THAT STRENGTH TRAINING IS INCREDIBLY IMPORTANT FOR THE HEALTH OF OUR BODIES,

but it's the methods we use to train that have the biggest impact on both our physiques and our functional ability.

We do two to three times as many pushing movements each day (meaning, we are pushing resistance away from us) as we do pulling. This is important to keep in mind because our muscular balance depends on evening out that ratio.

Humans evolved from walking on all fours to walking upright. It is not our bones that

keep our bodies in position, but our muscles that provide the structural support. While on all fours, gravity does a lot of the work required, but when upright, it's all on our muscles to hold the skeleton up. So physiologically, walking upright is actually an extremely difficult position to maintain. We naturally want to slump forward and let gravity pull our chin and shoulders down toward the ground. Add to that the fact we sit and stand in a forward slumped position most hours of the day, and it becomes imperative that something be done to counteract that downward pull and keep us standing tall.

What does human evolution have to do with training? It all comes back to the push-pull ratio. Pulling exercises, like the ones that make up the majority of this workout, will strengthen the muscles that do all the work to keep us upright against gravity to create a balanced physique and make you more functionally fit.

Try this upper body routine, which uses trisets (three different exercises performed back to back to back) comprised of two pull exercises for every push exercise each, so you'll break even while you break a sweat.

MODEL TIFFANY GASTON
MAKEUP & HAIR TWO CHICKS & SOME LIPSTICK
SHOT ON LOCATION AT IGNITE FITNESS IN COLUMBUS, OH

THE WORKOUT

HOW TO: Do 12 reps of each exercise in the first triset. Repeat the entire thing, then move to the next triset.

TRISSET 1

- 1a. Inverted Row
- 1b. One-Arm Dumbbell Row
- 1c. Bench Press

1A. INVERTED ROW →

Set up: Position the bar of a Smith Machine about waist-height: the lower the bar, the harder the exercise will be. Hang from underneath the bar with a wider than shoulder-width grip, feet on the ground and legs extended.

Action: Squeeze your shoulder blades together to initiate the movement. Bend your elbows, keeping them pinned in by your sides, and pull your chest to the bar. Pause, then slowly extend the elbows to return to start and repeat.



1B. ONE-ARM DUMBBELL ROW (NOT PICTURED)

Set up: Using a flat bench, place your right knee and right hand on the bench, knee under hip, hand under shoulder so your body is square with the ground. Grasp a dumbbell in your left hand and extend your arm toward the ground.

Action: Retract the left shoulder blade to initiate the movement then bend your elbow to pull the dumbbell towards your ribcage. Pause, then slowly lower the dumbbell to start. Repeat for all reps then switch sides.



CHECK YOUR FORM:
Your low back should be slightly arched and shoulder blades pulled together.



1C. BENCH PRESS

Set up: Lie back on a flat bench with a weighted barbell. Grasp the bar with a medium-width grip and extend your arms, locking the elbows (A).

Action: Bend your elbows, bringing the bar straight down to your chest (B). Pause, then extend through the elbows to return the bar to the start. Repeat.

TRISSET 2

2a. Cable Triceps Pulldown

2b. Cable Biceps Curl

2c. Triceps Push-Up

2A. CABLE TRICEPS PULLDOWN (NOT PICTURED)

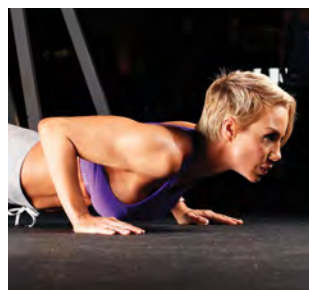
Set up: Attach a rope to a high pulley and hold it in both hands.

Action: Straighten your arms to pull the rope down to the tops of your thighs. Pause, then slowly bend to return to the start. Repeat.

2B. CABLE BICEPS CURL →

Set up: Lower the cable pulley to the last setting and grasp the rope in both hands, arms extended downwards.

Action: Bend your elbows to pull the rope up towards your chest. Pause, then slowly lower back down and repeat.



2C. TRICEPS PUSH-UP

Set up: Get into push up position with your hands on either side of your chest, elbows to your sides.

Action: Bend your elbows to lower your body as close to the ground as you can. Pause, then push through your hands to return to start.

TIP: If you're nearing failure, finish the set from your knees.



TRISSET 3

- 3a. Pull-Up
- 3b. Wide Grip Seated Row
- 3c. Barbell Push Press

3A. PULL-UP →

Set Up: If you cannot perform unassisted pull-ups, use a resistance band or assisted machine. Otherwise jump or step up to grab the handles of a pull-up bar, using an overhand grip and hang with your arms extended and knees bent.

Action: Draw your shoulders and elbows back and down as you pull your body up until your chin is just above the bar. Use control as you lower back down and repeat.

3B. WIDE-GRIP SEATED ROW (SEE PAGE 18)

Set Up: Sit at a cable row machine and attach a wide-grip bar. Place your feet on the platform with a slight bend in your knees, then lean forward just enough to grasp the bar using straight arms.

Action: Retract your shoulders and use your lats to pull the bar towards your waist as you raise your torso to an upright position. Pause, then slowly return the bar to the start and repeat.



3C. BARBELL PUSH PRESS

Set up: Stand with feet hip-width apart, holding a loaded barbell in front of your upper chest, with arms bent and palms facing out (**A**).

Action: Bend your knees slightly and explode through

the legs and elbows to raise the bar up and overhead (**B**). Bend your elbows to lower the barbell back to your chest and immediately repeat the movement to push the bar back up overhead. Repeat.

TIP: Be sure to keep your core braced and engaged throughout the movement to avoid putting pressure on your lower back.

TRISSET 4

4a. Cable Rear Delt Fly

4b. Straight-Arm Pulldown

4c. Seated Shoulder Press

4A. CABLE REAR DELT FLY (NOT PICTURED)

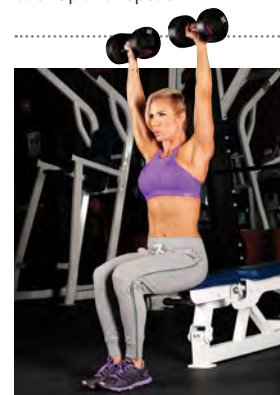
Set up: Adjust the pulleys on a cable apparatus so they are above your head. Grab the left pulley in your right hand and the right pulley in your left hand so your arms are crossed.

Action: Keeping your arms straight or just slightly bent, retract your shoulder blades and pull the cables out to your sides. Pause, then slowly return to the start and repeat.

4B. STRAIGHT-ARM PULLDOWN

Set up: Stand facing a lat pull-down apparatus with a straight bar attachment. Place your hands wider than shoulder-width apart on the bar.

Action: Keeping your arms straight, engage your core and press the bar down towards your upper thighs, focusing on using your lats. Slowly raise the bar back up and repeat.



4C. SEATED SHOULDER PRESS

Set up: Sit on the end of a bench or incline bench in an upright position. Hold a dumbbell in each hand near your shoulders with elbows bent and palms facing out.

Action: Extend your arms and press the weights overhead until they almost touch. Pause, then slowly lower back to the start and repeat.



CREATINE

Crash Course

It's one of the most studied, trusted and talked about supplements on the market. But what the heck is creatine, really?

WRITTEN BY ASHLEIGH GASS, MS, CSCS, CCN, CNS, CISSN

If you've ever taken sports supplements

to help you reach your goals, whether they be greater gains, a better pump, or a leaner bod, chances are, you've taken creatine. Next to whey powder and caffeine, it's one of the most widely used and trusted supplements in fitness. So trusted, in fact, that many of us pop these pills and powders with only a vague understanding of what they are and more importantly, what they do. We know it's been shown to improve athletic abilities in terms of strength and stamina, but is there more to it than enhancing performance? Where does it come from? How should you take it? And, are there side effects? If you're looking for a clearer picture of creatine, read on.

WHAT IS IT?

Creatine is a molecule produced in the body, made by the liver, kidney, and pancreas, and stored primarily within the skeletal muscle. Its job is to rapidly produce energy to support cellular function, meaning it helps supply the power needed for systems that require a lot of energy—like your brain or muscles—to operate. If you've ever sprinted, lifted something heavy, jumped for maximal height, or done any explosive movement, you have creatine to thank.

It was originally discovered through meat extraction in the 1830's, and a decade later was confirmed to be a normal com-

ponent of animal flesh. If you're consuming an omnivorous diet, you'll get some creatine from foods such as pork, beef, and fish. Humans have a natural "pool" of stored creatine (about 2 grams worth), which comes from a combination of what you consume and what your body produces. As for vegans and vegetarians, their pools are more like puddles; studies have shown there is the potential for significantly reduced creatine stores compared to those eating a diet containing meat.

WHAT ARE THE BENEFITS?

When looking at benefits like improved body composition (lean body mass) and performance in high intensity exercise, creatine supplementation is well supported. Of over 500 studies performed on this supplement to date, over 70 percent have shown significant improvements in performance in both strength and sprint events, with none reporting detrimental effects. For example, a 2011 study in the *International Journal of Sports Physiology and Performance* examined the effects of creatine supplementation in elite, University level volleyball players and reported significant improvements were found in players' repeated spike jump and block jump abilities.

Of particular importance for women seeking to lean out are the gains in lean mass seen in some athletes with creatine use. Over 4-12 week training cycles, subjects have been shown to gain twice the amount of lean mass compared to those receiving a placebo. These findings have been consistently reported in studies performed by the International Society of Sports Nutrition.

DOES IT CAUSE BLOATING?

Creatine acts as an osmolyte, meaning, it regulates cell volume and fluid balance, drawing water into your muscles. Therefore, supplementing with

creatine may cause some individuals to gain water weight, especially within the first few days of use. This effect known as "cell swelling" actually acts as a strong supporter of protein synthesis. This is beneficial, as the act of protein synthesis is a critical precursor to building lean muscle.

"Of over 500 studies performed on creatine, 70 percent have shown improvements in performance."

Besides water retention, other side effects such as bloating and gastrointestinal discomfort can occur during "loading" phases (dosages of 20 g per day for a week). However, these potential side effects are easily avoided by using a maintenance dose of 3-5 g per day.

But if you're still leery, you can opt for taking even lower doses and still gain an edge in the gym. A 2011 study in the journal *Nutrition* showed that as little as 0.03 g per kg of bodyweight per day still provided some of the same performance enhancing benefits that come with higher doses, but without the side effect of retaining water.

IS IT BAD FOR YOUR KIDNEYS?

Media allegations that creatine can impair kidney and liver function have surfaced over the years, but research on healthy individuals has completely debunked the myths, including a 2013 study in the *Journal of the International Society of Sports Nutrition* that found supplementing with creatine for 12 weeks had no adverse effects on kidneys of weightlifters following a high-protein diet.

That being said, you should always check with your doc before starting a supplement program, and adhere to the recommended dosage of 3-5 g per day (never exceeding a daily dose 20 g). If you have existing kidney disease, you must be under the care of your physician before supplementing with creatine, or should avoid taking it altogether.

HOW TO DOSE

If you are looking to get results in a short time frame, such as if you are prepping for a competitive event, follow a loading protocol of 5 g, four times a day for one week only. After one week of loading, decrease dosage to 3-5 g per day for maintenance.

For those not on a timeline, or, who don't want to risk gaining water weight, a daily maintenance dosage of 3-5 g per day will offer similar performance advantages over time as those seen with loading protocols.



IT'S ALL IN THE HIPS

Seven simple stretches for tight hip flexors.

PHOTOGRAPHY BY PAUL BUCETA

Bound Angle

SETUP: Sit tall with your knees bent and flared out to the sides. Gently press the bottoms of your feet together in front of you (A). Inhale.

ACTION: Exhale, and keeping a flat back, fold forward, gently pressing your hips and knees down (B). Hold for 5 deep breaths.



Frog Pose

SETUP: Kneel on the floor with your knees wider than hip-width apart. Turn your feet so your arches make contact with the floor.

ACTION: Walk your hands out in front of you and place your forearms and palms flat on the floor. Hold for 5 deep breaths.



MAKE SURE YOUR
TORSO IS PARALLEL
TO THE GROUND,
DON'T LET YOUR
BELLY SAG OR YOUR
SHOULDERS ROUND.



Deep Squat To Hamstring Stretch

SETUP: Place your feet wider than shoulder-width apart and drop your hips as low as you possibly can without rounding your back. Place your elbows inside your knees and grab your toes (A).

ACTION: Hold the starting position for a few breaths. Next, exhale and straighten your knees while still holding your toes, raising your hips towards the ceiling (B). Hold for a few breaths, and lower back down. Repeat 2-3 times.

MAKE SURE YOUR
FRONT KNEE
DOESN'T EXTEND
OVER YOUR TOES.



Sampson Stretch

SETUP: Get in a low lunge position with your back knee touching the ground. Once you are stable, place the top of your back foot flat on the floor.

ACTION: With one hand on your hip and the other resting on your front leg for balance, gently lean forward until you feel a good stretch in your extended hip. Hold for 30 seconds, breathing deeply. Repeat on the other side.

Lying Hero

SETUP: Kneel on the floor with your knees apart. Center your weight between your legs with your butt touching the floor, or on a yoga block. Inhale.

ACTION: Exhale and lower your torso backwards towards the floor. Walk your elbows back and lean on them for support with your forearms flat on the floor. Hold for 3-5 breaths, then slowly walk your elbows forward and raise back up to the starting position.



IF YOU'RE REALLY
FLEXIBLE, YOU CAN
LOWER YOUR TORSO
ALL THE WAY TO
THE GROUND.



Lying Figure Four

SETUP: Lie on your back with knees bent. Place your left ankle on top of your right thigh just above the knee and flex your foot.

ACTION: Lift your right foot and place both hands around your right hamstring. Breathe and gently pull your thigh towards your chest until you feel a stretch in the opposite glute. Hold for 30 seconds, breathing deeply. Repeat on the other side.

Reclining Bound Angle

SETUP: Get into the bound angle pose as you did before. Inhale.

ACTION: Exhale and slowly walk your hands back behind you as you lower your torso all the way to the floor. Close your eyes and place your arms on the floor at your sides, palms facing the ceiling. Breathe deeply. Hold for 1 minute. Work up to 10 minutes.



WRITTEN BY
DR JAMES HO, DC, BHSC

Crossfit Safety

Love a good WOD? Here's a few tips for going hard without getting hurt.

THE BENEFITS OF EXERCISE far outweigh a sedentary lifestyle, however, training, especially at the higher and competitive intensities that make CrossFit so appealing, comes with risks. Studies looking into injury rates of CrossFit are relatively rare, but a recent published and peer reviewed study found that nearly 20 percent of CrossFit athletes develop some type of injury. Reported injuries mostly favored the shoulders and low back in gymnastic and power lifting exercises, respectively.

Simple truth: Injuries in all sports are inevitable. No matter how skilled or fit you are, accidents can happen and often do. Tennis players develop tennis elbow, runners get runner's knee; I've seen it all. However, treating CrossFit athletes' injuries has increasingly become more prevalent. The overwhelming cause is due to the lack of patience and mobility, and deficiency of technique.

TECHNIQUE BEFORE EGO

Technique is everything in lifting. Even the most seasoned CrossFit athletes' form can falter as they increase weight and resistance, especially in a competitive or group setting. The group mentality of CrossFit, while positive when it comes to encouraging you to push hard through mental and physical barriers, can make it tempting to ignore technique. But there is no shame in scaling a WOD to suit your fitness level, or asking the coach to keep an eye on your form. Even the smallest correction in your technique could mean avoiding a serious injury.

DON'T IGNORE PAIN

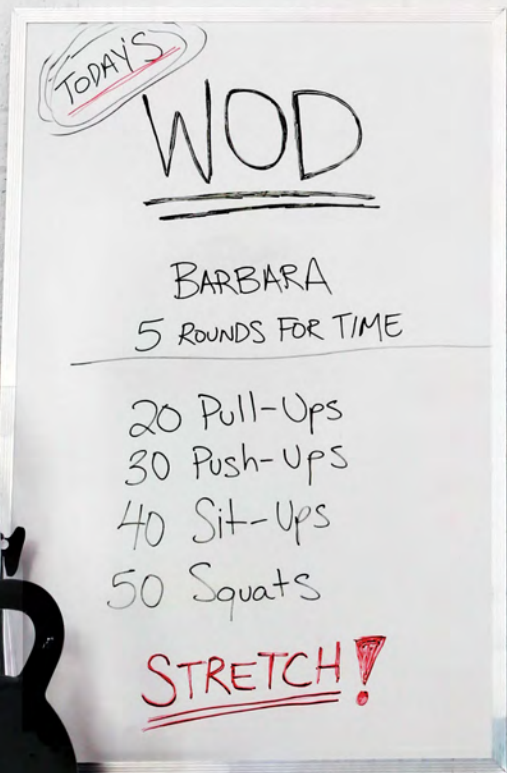
I know you're in a rush to get to that next level of fitness or add plates to the bar, but when you push through pains, you're exposing yourself to acute or chronic injuries. Post-workout aches and soreness are the

body's metabolic repair process working to strengthen and ultimately increase the size of the muscles to better cope with future challenges. However, sudden and sharp pain is a red flag to stop. Ignoring either type of pain and training anyway can cause tissue and joint failure or injury. Anything worth doing takes time, so set realistic goals and slow down.

WORK ON MOBILITY

Admittedly, spending time working on mobility isn't as sexy as going full beast mode in your workout. But mobility is essential to avoiding injury, and rewarding. Study your movements in the mirror. If your form is even remotely incorrect due to inadequate mobility in the ankles, hips or shoulders, work on improving your range of motion before adding weight. You can improve mobility through foam rolling, yoga, or stretching. Create a routine of dynamic stretches and movements to perform before each WOD. Then, spend some time with static stretches after your workout. Keeping the joints and muscles loose will allow you to develop proper technique and improve your performance.

Safe Training,
Dr. James Ho



95
CALORIES

20g
PROTEIN

3g
CARBS

The future of ready-to-drink protein is here.

ABOUTTIME[®]

ProHydrate[™]



No Artificial Colors or Flavors



Sweetened with Stevia



Whey Protein Isolate



Gluten Free



USE PROMO CODE **STRONG** FOR 25% OFF YOUR ORDER AT TRYABOUTTIME.COM!

FOLLOW US @TRYABOUTTIME ON



RUGGED MANIAC



SUMMER *SNAPSHOTS*

There's no doubt about it: The hottest trend this summer is getting dirty. Mud runs have taken over as the season's most popular fit event, and strong women everywhere are abandoning their treadmills and bootcamp classes to get in on the messy mayhem.



MUDDERELLA



BATTLEFROG



MUDHERO



SPARTAN



SPARTAN

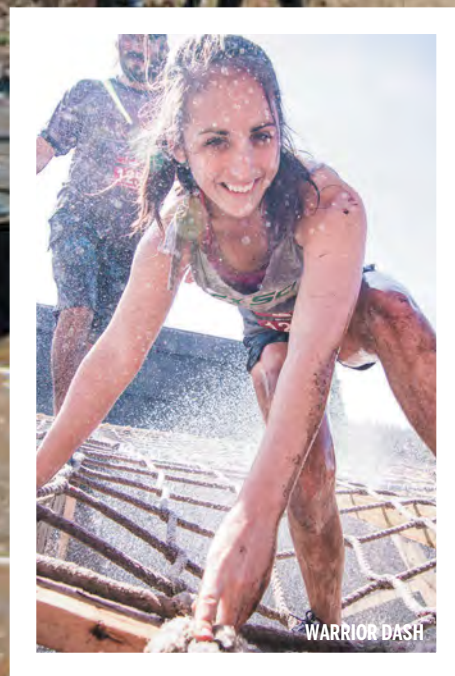


**A MUDDY MAIDEN
CONQUERS THE
FROG HOP OBSTACLE
IN RUGGED MANIAC.**



RUGGED MANIAC





THE CHALLENGE YOU'VE BEEN LOOKING FOR

KILLER WORKOUTS • NUTRITION SEMINARS • REVIVED MOTIVATION

NEW ENGLAND

JULY 10-12, 2015

MINNEAPOLIS, MN

AUGUST 7-9, 2015

THE ENTIRE EXPERIENCE PHOTOGRAPHED BY PAUL BUCETA

STRONGCAMP

PRESENTED BY STRONG FITNESS MAGAZINE

Visit strong-camp.com for the next camp near you!





**SHOW YOUR
STRONG SIDE**

Apparel Available at **STRONGFITNESSMAG.COM**